

especially as many of the species enumerated are simply saprophytic forms, whose presence can do no injury. The enumeration of such species is, from a scientific standpoint, of great value; but they are altogether out of place in a work which should place before practical men the outcome of scientific research in language divested of scientific technicalities. The author considers it essential that each fungus should possess a popular name in addition to its scientific one, and there is some justification for this idea, especially when such names are of local origin, and express a definite idea, as "collar-rot," "wither-top," &c., but it is more than doubtful whether the English rendering of the scientific name, as "West Australian Septoria," or "Glœosporium-like Colletotrichum," will be adopted by the fruit grower. Fifty-one species of fungi found on citrus trees are described as new to science; this is a somewhat daring piece of work in the comparative absence of literature and herbaria. It must be borne in mind that the fact of a fungus not agreeing with any species recorded in Saccardo's "Sylloge Fungorum" by no means justifies an author in describing it as new to science.

In defining parasites and saprophytes respectively, the author states that it is not always easy to decide between the two, and the crucial test, by means of pure cultures, is not alluded to. This, however, may not be due to lack of knowledge or desire on the part of the author, who, as vegetable pathologist, is probably expected to cover too much ground; hence fundamentals, which consume time, are apt to be neglected in favour of less exact methods, which may meet with approval for the time being.

The twelve coloured plates illustrating the most pronounced and destructive forms of disease attacking lemons and oranges are excellent in every respect, and should prove of great service in enabling planters to recognise at an early stage the appearance of a disease which, if neglected, might prove disastrous. The most approved methods of treating the various diseases are given in tabular form.

Missouri Botanical Garden. Eleventh Annual Report.
Pp. 144; 58 plates. (St. Louis, Missouri, 1900.)

THIS volume is almost entirely made up of four scientific papers representing work carried out in connection with the Missouri Botanical Garden. The papers are: a disease of *Tascodeium distichum* known as "peckiness," also a similar disease of *Libocedrus decurrens* known as pin-rot, by Dr. H. von Schrenk; Agaves flowering in the Washington Botanic Garden in 1898, by Mr. J. N. Rose; A Revision of the American species of Euphorbia of the section Tithymalus occurring north of Mexico, by Mr. J. B. S. Norton; and a Revision of the species of *Lophocarpus* of the United States, and a description of a new species of *Sagittaria*, by Mr. J. G. Smith. Dr. von Schrenk's paper has already been noticed (vol. lxi. p. 452).

Mr. Trelease, the director of the Garden, shows by these papers and his report that valuable work is being done. A small synoptical collection representative of the principal natural orders of flowering plants has been installed in the central part of the Garden, where it is proposed to continue it as a convenient means of enabling teachers in elementary schools to demonstrate to their pupils the characters of the larger plant groups. The total number of species and varieties now cultivated in the Garden is nearly ten thousand.

Mr. Trelease devoted a couple of months last summer to the study of the botany of the Alaskan coast region and the islands of Bering Sea, as a member of the Harriman Alaska Expedition. The scientific results of his work will, no doubt, be published after the large amount of material collected has been subjected to critical study.

LETTERS TO THE EDITOR.

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. No notice is taken of anonymous communications.]

Atmospheric Electricity and Dew-ponds.

It is not my intention to enter into controversy with such authorities as Mr. Aitken or Mr. Wilson. I wish only to describe certain phenomena which have come under my notice, in the hope that I may help to throw some light on a subject of great importance, theoretical as well as practical.

On the chalk hills in the south-east of England there are a number of ponds known as dew-ponds. One of these was described by Gilbert White ("Natural History of Selborne," Letter 29). There is a pond of considerable size at one of the highest points of the main ridge of the South Downs close to Chanctonbury Ring. From its position it is obvious that this pond can only be fed by water precipitated into it directly from the air. Yet it always contains a considerable volume of water. At the end of the dry weather last year, when most of the ponds in the valleys were empty, this dew-pond still contained several thousand gallons. How does this pond obtain the enormous quantities of water necessary to compensate for the rapid evaporation in such an exposed position, and also to supply large flocks of sheep?

It appeared to me that there was but one possible explanation: a difference of electrical potential must cause an attraction between the particles of moisture and the summit of the hill upon which the pond is situated. It is, of course, well known that drops of rain, &c., usually have an electrical charge, but it was necessary to ascertain whether this was capable of producing such a great effect. In order to test this point I took two porcelain basins of equal size and suspended them by means of silk threads from stakes driven into the ground at a high part of the ridge of the South Downs. In each of these basins was fixed an upright piece of sheet-copper. The two pieces of apparatus were placed in exactly similar positions and were in every respect identical, except that in the one case the copper screen was connected to earth by means of a wire, whereas in the other case it was insulated by the silk threads.

The apparatus was left thus during the night of April 1, 1899. There was a thick mist on the hills, so much so that I was unable to select the most favourable position for the apparatus. In the morning the amount of water in the two basins was measured. In the basin with the insulated screen there were 15.5 c.c. of water; in that with the screen connected to earth there were 18.0 c.c. This clearly confirmed my theory, for the insulated apparatus would tend to acquire an electrical charge from the particles of moisture. Consequently the attraction would be less than in the case of the apparatus which was not insulated. The insulation must have been very imperfect, for the silk became saturated with moisture as soon as the apparatus was erected. The position chosen, also, was not so favourable as it might have been. Nevertheless there was a difference of 16 per cent. in the quantities of moisture collected.

I intended to repeat and extend the experiment, but I have been unable to find an opportunity. I hope that this letter will call attention to a matter of considerable interest.

ARTHUR MARSHALL.

Chemical Department, Woolwich Arsenal, September 10.

Huxley and his Work.

MR. HENKEL'S quotation from "One Hundred and One Great Writers" (NATURE, September 6) reminds one that the taunt of being a populariser was familiar enough to Huxley himself. It recalls also the little side-thrusts with which in return the detractors were sometimes honoured. In the preface to vol. viii. of the "Collected Essays," for instance, Huxley remarks:—

"The popularisation of science has its drawbacks. Success in this department has its perils for those who succeed. The people who fail take their revenge, as we have recently had occasion to observe, by ignoring all the rest of a man's work and glibly labelling him a mere populariser."

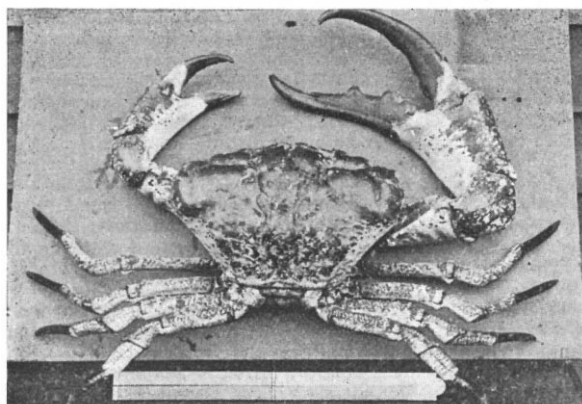
The belittling process, though unjustifiable, was understandable enough in those old days of controversy. To-day it seems rather uncharitable.

C. SIMMONDS.

Thurlow Hill, West Dulwich, September 17.

A Large Tasmanian Crab.

I AM sending you a photograph of a large crab (*Psilocranium gigas*), caught in the Tasmanian waters during the present month. The crab weighed 30 lbs. It is one of the largest that has been caught in these waters. We have several specimens in the Tasmanian Museum weighing from 16 to 22 lbs. They



are generally caught by the fishermen in very deep water, from fifteen to thirty fathoms, while fishing for the fish known as the Tasmanian Trumpeter (*Latris hecateia*).

I shall be glad to know whether readers of NATURE have ever known of a larger *Psilocranium gigas* having been caught.

ALEX. MORTON.

Tasmanian Museum and Art Gallery, July 30.

Large Puff Balls.

HAVING seen in some papers lately notices of large puff balls, it may probably be of interest to record the measurements of one far exceeding in size any I ever heard of.

It was found by my daughter, Mrs. Pole-Carew, in a small park belonging to me near this place, where she is residing. I took careful measurements of it at the time it was found, of which I send you a copy.

It differed in no respect except size, either inside or out, from the ordinary smooth puff ball.

Measurements of a large Puff Ball found in Chipley Park, near Wellington, Somerset, June 12, 1900.

Horizontal circumference	57 inches
Vertical ditto, greatest	51 "
" " smallest	46 "
Height	14 "
Greatest width	18½ "
Smallest "	17 "
Weight	14 lb. 10 oz.

W. A. SANFORD.

Nynehead Court, Wellington, Somerset, September 11.

"A Tour through Great Britain in 1727."

Is not the "Tour" queried by your reviewer (p. 417, column 2) that of Defoe, which has frequently been reprinted? and yet the first edition (1724-27) is still the best, in spite of re-editors and its extension from three vols. to four.

Ulverston.

S. L. PETTY.

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PROF. HENRY SIDGWICK.

THE death of Henry Sidgwick entails the removal of one of the most potent influences that have been felt in Cambridge for the last forty years. Only a brief allusion can be made here to the time and energy which he devoted to University affairs, and to the constant and generous aid given by him to departments handicapped by poverty. As one of the strongest leaders in University policy, his power depended on a practical insight and decision of view for which those who know him only through his writings would be unlikely to credit him.

He was born in 1838. His father, the Rev. William Sidgwick, was headmaster of the Skipton Grammar School. Having been at Rugby under Dr. Goulburn, he entered Trinity College in October 1855. In 1859 he took his degree as Senior Classic and 33rd Wrangler, was elected to a Trinity Fellowship, and soon afterwards appointed Lecturer in Classics and Assistant Tutor. His interest in literary criticism and in problems of practical ethics was indicated, at this early stage, by various minor writings, of which we may specially mention an article on "The Prophet of Culture" (*Macmillan's Magazine*, 1867), in which he made a very characteristic examination of Matthew Arnold's closing lecture at Oxford. In 1868 was founded a Society, called "The Free Christian Union," of which Sidgwick was vice-president. His famous essay on "The Ethics of Conformity and Subscription" (1870) was written at the Society's request. This period of his life culminated in 1869 in the determination to give up his Trinity Fellowship on the ground that he no longer believed in the explicit creed to which the holders of Fellowships were required to subscribe under the old system of "tests." This action of Sidgwick's and the similar acts of some of his friends and contemporaries were undoubtedly important forces in the promotion of the abolition of the tests. Not long after, Sidgwick was made Lecturer and Examiner in the Moral Sciences, and later, Prælector in Moral and Political Philosophy at Trinity. In 1881 he was elected to an Honorary Fellowship there, and in 1883 he succeeded Birks in the Knightbridge Professorship of Moral Philosophy, which he resigned at the beginning of his illness last June.

As a teacher, Sidgwick exerted a profound and enduring influence, largely due to the extraordinary patience and quick perception with which he recognised and criticised the efforts of his pupils at independent thought. He presented to them an ideal of conscientious thoroughness in the pursuit of speculative truth, which has impressed and inspired even those who have developed their thought in directions far removed from his own.

Sidgwick's most important work, "The Methods of Ethics," was published in 1874 (2nd ed., 1877; 3rd, 1884; 4th, 1890; 5th, 1893). Its purpose is unlike that of most other modern works in philosophy. Not aiming directly at the construction of an ethical system, it adopts rather the Socratic method of stimulating the plain man to examine his own principles, and by self-criticism to free them from vagueness, obscurity and inconsistency. By many readers the unimpassioned, elaborately reasoned, judiciously balanced criticism is found unprofitable. But its penetrating subtlety and breadth of view are characteristics which have been recognised by all who have come under its influence, and have won for it a place amongst the philosophical classics. In general spirit it carries on the tradition of English common-sense empiricism; and, while to Sidgwick all forms of transcendentalism were repellent, yet unlike many of his predecessors in English philosophy, his criticism of opposed schools of thought was always keen and thoroughly scholarly. A different side of Sidgwick's intellectual character is shown in his work on "Practical Ethics," a collection of essays and addresses (1898), in which his speculations are applied to the very definite solution of actual problems of conduct in modern life.